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## THE ROLE OF POWER AND POLITICS IN THE REPRICING OF EXECUTIVE OPTIONS

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**We explore how CEO power affects the repricing of executive options. The spread between an option's exercise, or strike, price, and the market value of a stock impacts the likelihood of repricing. This effect is enhanced when the CEO of the firm in question is also the chairman of its board. Firm and CEO visibility, more board members appointed after a CEO's hiring than before it, a staggered board, and relatively high percentages of CEO and institutional ownership reduce the impact of the spread on the likelihood of repricing.**

For years, agency theorists have argued that the use of long-term compensation tools such as stock options are effective mechanisms for aligning management's interests with those of shareholders (e.g., Fama & Jensen, 1983; Jensen & Meckling, 1976). The alignment of managerial and shareholder interests is achieved by tying a significant portion of an executive's compensation to the market performance of the stock of his or her employer. Long-term incentive plans have proliferated over the last 20 years as agency arguments regarding incentive compensation have increased in popularity, becoming the "dominant logic" in executive compensation.

Although a number of publications have explored the role of stock options in incentive compensation (see Gomez-Mejia & Wiseman [1997] and Murphy [1998] for reviews of the literature in this area), relatively few studies have examined issues such as how, when, and why stock options get repriced (e.g., Brenner, Sundaram, & Yermack, 2000; Carter & Lynch, 2001; Chance, Kumar & Todd, 2000). Option repricing occurs when a board of directors elects to either adjust the exercise price (also known as the *strike price*) of an executive's existing options downward, or to cancel an executive's existing options and grant him or her new options with a lower strike price. Although compa-

nies argue that option repricing ultimately benefits shareholders (Chance et al., 2000), investors generally view repricing negatively and consider it to be "rewarding failure" (Byrne, 1998; Martinez, 1998).

The purpose of this study was to develop a framework for understanding why some companies reprice options while others do not. Since option repricing can be considered a breakdown in the agency relationship (Chance et al., 2000), we moved beyond traditional agency explanations and explored how CEO power, the power of outside stockholders, and the visibility of a company and its CEO enhance or reduce the likelihood that option repricing will occur. In this study, we pursued a finer-grained approach than has previous research, which has typically relied on analyses over annual intervals (e.g., Brenner et al., 2000; Carter & Lynch, 2001; Chance et al., 2000). Instead, we used monthly observations examining how the power of a CEO interacts with the difference between the average strike price of options and the current market price of its stock (what we hereafter refer to as the "negative spread") to impact the decision to reprice.

### THEORY AND HYPOTHESES

Option repricing generally occurs after a sharp decline in the stock price of a company that has placed the current market value of the company's stock below the strike price of executives' options (making their options "out of the money" or "underwater"). External market forces beyond the control of management are often blamed for these precipitous drops, and repricing is commonly justified by the need to retain and motivate a current man-

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agement team. However, as the business press has reported, option repricing often occurs over howls of protest from shareholders who have also suffered financial losses from the drop in stock price (e.g., Byrne, 1998; Martinez, 1998). Indeed, these strong, negative reactions from shareholders have led Patrick McGurn, the director of corporate programs for the proxy advisory service Institutional Shareholder Services, Inc., to conclude that option repricing has become "the preeminent concern on the compensation front for shareholders" (Martinez, 1998). Because of the negative publicity that option repricing generates, and the repercussions it can have for a company and the legitimacy of its claims regarding other compensation practices, repricing offers an ideal opportunity to explore how the power of key stakeholders and the CEO influence whether or not a company takes actions that can have these potentially damaging results.

Although agency-theoretic arguments such as the realignment of management's interests with those of shareholders are often used to justify decisions to reprice options, the resistance of stockholders to repricing (e.g., Byrne, 1998; Martinez, 1998) suggests that option repricing nonetheless represents a breakdown in the agency relationship between managers and stockholders (Brenner et al., 2000; Chance et al., 2000). Prior research has shown no empirical support for claims that industry conditions beyond the control of management (Brenner et al., 2000; Chance et al., 2000; Carter & Lynch, 2001), or being in an industry where management is in high demand (Brenner et al., 2000), drive repricing. In addition, the findings of Chance and colleagues call into question the frequent claims of the boards of repricing firms that their option grants cannot motivate and/or retain employees at their current strike prices. Chance and his colleagues found that repriced options averaged 5.5 years until expiration and that half of the repriced options would have been "in the money" within 19 months had they not been repriced. Alternative theoretical explanations may provide a better understanding of what factors influence decisions to reprice executive options.

### Option Strike Price and Market Price Spread

Recent research (e.g., Sanders, 2001; Wiseman & Gomez-Mejia, 1998) has suggested that executives will make different decisions depending on whether or not their incentive compensation is in a loss position. Drawing on prospect theory (Kahneman & Tversky, 1979; Sitkin & Weingart, 1995), scholars have argued that executives facing real losses will make riskier decisions than executives

in a position to gain, or in neutral positions. They have also argued that contextual factors can impact the framing of decisions and evaluation of risks. For example, Sanders (2001) argued and found that poor firm performance created a "negative frame," minimizing risk perceptions and increasing risky behaviors when CEOs had larger amounts of stock option pay.

In the context of stock option repricing, the difference between the strike price of executives' options and the market price of a stock is an important contextual factor that can impact decision framing and perceptions of risk (Carter & Lynch, 2001). Although, as Sanders pointed out, executives do not suffer real economic losses when their stock price declines, they may still *perceive* a loss as having occurred (Wiseman & Gomez-Mejia, 1998). The greater the negative spread that has resulted from a fall in the price of a stock, the greater the perceived loss, and the lower the probability that the market value of the stock will exceed the strike price of the option before it expires. This change in spread may reduce the concern of both the firm's CEO and its board about the negative ramifications of repricing for the firm, a reduction that increases the likelihood that the board will act in the CEO's interests and reprice his or her options.

*Hypothesis 1. The greater the negative spread (defined as the strike price of a CEO's options minus the market value of a stock), the more likely the options are to be repriced.*

Although change in spread is likely the primary driver of whether or not options are repriced, the power of a CEO and key stakeholders can be expected to moderate its influence on the likelihood of a repricing event. We focus on the moderating effects rather than on the direct, main effects of these factors in developing our arguments because there is no real incentive to reprice options if performance is high and all options are in the money. Thus, a negative spread is a necessary contextual condition for these factors to be effective.

### Ownership Sources of Power

Finkelstein stated the following: "Power accrues to managers in their capacity as agents acting on behalf of shareholders. Hence, the strength of a manager's position in the agent-principal relationship determines ownership power" (1992: 509). Ownership power thus depends on the concentration of stock both in the hands of interested and active outsider shareholders and in the hands of the CEO of a firm him- or herself (Tosi et al., 1999).

**Institutional stock ownership.** Recent research has suggested that institutional investors are becoming an increasingly important group of shareholders who have the potential to check self-promoting behavior on the part of management (David, Kochhar, & Levitas, 1998; Useem, 1996). According to these arguments, institutions are more likely than individual investors to engage in proactive behavior for three principal reasons: it is more difficult for institutions to exit (to sell holdings) without significantly depressing the price of the stock (David & Kochhar, 1996); institutions enjoy greater economies of scale in monitoring compensation policy than do individuals (Black, 1992); and institutions have more ability to act collectively (Davis & Thompson, 1994). Support has been found for the proposition that both high- and low-ownership institutional investors can mitigate the power of executives and can influence compensation policies (Useem, 1996; Wahal, 1996). Anecdotal evidence is consistent with theoretical expectations that institutional investors generally react negatively and will oppose executive option repricing (e.g., Byrne, 1998; Martinez, 1998). For example, Martinez noted that the State of Wisconsin Investment Board claimed it had persuaded 16 companies in which it held stakes to adopt a policy requiring shareholder approval of any future repricings.

Finally, it is also possible that institutional investors may not even have to actively exercise their power to have a significant impact on repricing decisions. As managers become more sensitive to the reactions of institutional owners, concerns vis-à-vis these important constituents may lead to a decrease in the probability that a company will decide to take actions that outsiders may perceive negatively (Porac, Wade, & Pollock, 1999; Wade, Porac, & Pollock, 1997)—in this case, repricing executives' options. Given the preceding arguments, it is reasonable to assume that stock ownership by institutional investors may dampen the effect of spread on option repricing.

*Hypothesis 2. Institutional stock ownership will interact with negative spread to decrease the likelihood of option repricing.*

**CEO stock ownership.** Much of the research in the agency tradition focusing on the ownership structure of firms has distinguished between "owner-controlled" firms, in which single outside shareholders own 5 percent or more of the voting shares, and "management-controlled" firms, in which no single major outside shareholders exist (Gomez-Mejia & Wiseman, 1997). Current theorizing suggests a third category—"owner-managed"

firms—in which insiders own 5 percent or more of the companies' stock (Tosi et al., 1999). Strong support has been found for an inverse relation between CEO ownership concentration and managerial self-serving behavior. Murphy suggested that the "natural measure of CEO incentives and [indicator of] the severity of the agency problem is the percentage ownership [of the CEO]" (1998: 32). In terms of conflicts of interest between managers and shareholders, Murphy reported that increases in the percentage of direct CEO ownership (with dollar ownership held constant) reduced agency problems related to perquisite compensation and was the strongest disincentive to managerial self-serving behavior (Jensen & Murphy, 1990; Murphy, 1999). In addition, Sanders (2001) found that CEO stock ownership was negatively associated with taking riskier organizational actions. Although option repricing reduces the individual risk to an executive, it increases the risk to an organization of a negative backlash from shareholders and/or the business press, and thus it can be regarded as a risky organizational activity. Therefore, like institutional ownership, CEO stock ownership may dampen the effect of negative spread on the likelihood of repricing.

*Hypothesis 3. CEO stock ownership will interact with negative spread to decrease the likelihood of option repricing.*

### Structural Sources of CEO Power

Finkelstein noted the following: "Managers who have a legislative right to exert influence are influential. Hence, CEOs have high structural power . . . because of their formal organizational position" (1992: 506). In addition to a CEO's formal position or positions (for instance, one individual's serving as both chief executive and chairman of the board [Wade, O'Reilly, & Chandratat, 1990; Zajac & Westphal, 1995]), other organizational structures and rules protect the CEO from outside influence and enhance CEO power.

Both agency theory (Fama & Jensen, 1983; Weisbach, 1988) and the sociopolitical literature on executive compensation and top management teams (Belliveau, O'Reilly, & Wade, 1996; Main, O'Reilly, & Wade, 1995) suggest that the composition of a corporation's board of directors has important implications for its CEO's power. Recent research has shown that the ability of a CEO to nominate board members, both insiders and outsiders, can significantly enhance the CEO's power by allowing him or her to select board members who will be loyal, as well as by increasing the directors' dependence on

the CEO for their board seats (Belliveau et al., 1996; Wade et al., 1990; Zajac & Westphal, 1995). This evidence is consistent with that of previous research (e.g., Brenner et al., 2000) indicating that the presence on a board's compensation committee of a director who also has a dependent relationship with the organization (that is, the director provides legal, consulting, or other services to the firm that could compromise his or her independence) is positively associated with the repricing of stock options.

Putting in place barriers to prevent hostile takeovers can also enhance a CEO's power by reducing the effectiveness of the market for corporate control and enhancing his or her ability to engage in other unpopular activities, such as repricing executive options (e.g., Sundaramurthy, Rechner, & Wang, 1996; Weston, Chung, & Siu, 1998). Staggered elections of board members, poison pills, and the creation and use of employee stock option plans have all been used to reduce the likelihood of a hostile takeover that could result in the ousting of a current management team (Weston et al., 1998), even if the takeover would be in the best financial interests of the stockholders.

A CEO's structural power is expected to affect the likelihood of whether option packages are considered for repricing. As Finkelstein (1992) noted, the sources and exercise of power are context-specific. Thus, appropriate conditions must exist for CEO power to impact the decision to reprice. Holding underwater options creates such a condition for a CEO. In this context, we would expect CEO structural power to moderate the effect of negative spread in such a way as to increase the chances of the occurrence of such an event. The following hypothesis is proposed:

*Hypothesis 4. CEO structural power will interact with negative spread to increase the likelihood of option repricing.*

## Visibility

Given that repricing is likely to generate a great deal of negative sentiment among shareholders, the visibility of the action may create concerns for companies considering repricing executive options. Boards may be less likely to engage in self-serving behaviors on their CEOs' behalf if they feel these actions are likely to be observed and discussed publicly. Research has shown that high visibility increases a firm's susceptibility to influence from outside constituents (e.g., Edelman, 1990, 1992). Two factors that may increase the visibility of the repricing event are the size of the firm and the amount of compensation the CEO receives.

Edelman (1990, 1992) argued that, because of their high visibility, large firms felt pressure to adopt formal grievance procedures, even though existing laws did not specifically require them to do so. Mishina, Pollock, Porac, Rao, and Wade (2000) found that large firms are more likely to be the targets of shareholder activists proposing corporate governance resolutions. Large firms are also more likely than small organizations to be evaluated by industry observers and to be discussed in the business press (Bhushan, 1989). Two previous repricing studies have shown firm size to be negatively associated with the likelihood of repricing (Brenner et al., 2000; Chance et al., 2000). Although neither of these studies provides an ex ante theoretical explanation for why smaller firms are more likely to reprice than larger firms, Chance and colleagues (2000) speculated that this finding was a result of the visibility of larger firms and the amount of attention the business press gives to repricing.

CEO compensation can also draw attention to a firm and enhance the threat associated with the decision to reprice executives' options (e.g., Porac et al., 1999; Wade et al., 1997). Popular business periodicals such as *BusinessWeek* and *Fortune* publish annual reports highlighting the compensation packages of the highest-paid CEOs, and compensation consultants have decried the astronomical levels of CEO pay (e.g., Crystal, 1991). In the academic literature, higher levels of CEO annual and long-term compensation have been associated with more frequent discussions of both external validations of CEO pay and the performance measures used to calculate bonuses when justifying executive compensation (Wade et al., 1997). CEO pay has also been associated with firms' making strong efforts to obfuscate performance comparisons by including companies outside their primary industries in their self-reported industry peer groups (Porac et al., 1999). A CEO's current compensation, and the degree to which repricing his or her options may be perceived as excessive, could therefore be expected to moderate the effect of spread and influence the likelihood that a repricing event will occur.

*Hypothesis 5. CEO and firm visibility will interact with negative spread to decrease the likelihood of option repricing.*

## METHODS

### Sample

We examined repricing events that occurred during the latter six months of 1998, taking that period

as a natural experimental setting. During this period, the market as a whole suffered a significant downturn and a subsequent recovery. The brief but intense decline in the overall market enhanced conditions for observing option repricing. Indeed, a number of option-repricing events were reported during this time (e.g., Johnston, 1998).

To examine the determinants of stock option repricing we selected a single industry—computer software—where options have become an important component of executive compensation packages (Carter & Lynch, 2001). By selecting a single industry, we were able to rule out cross-industry variations, including differential effects in compensation practices. The original sample included 391 publicly traded software companies listed in the COMPUSTAT database at the end of 1997. Owing to difficulties associated with the timing of repricing events and fiscal year reports, we restricted our analyses to firms whose fiscal year-ends were between January and June. We also dropped from the sample foreign firms, firms whose CEOs held no options, and firms that went bankrupt, merged, were acquired by another firm during 1998, or conducted an initial public offering within one year of the period under study (thereby limiting the availability of necessary lagged data). The resulting sample contained 150 companies. Missing data reduced our final sample to 136 firms and 799 firm-month observations. The results of *t*-tests revealed no differences between our final and original samples in terms of sales, net income, number of employees, or total shares outstanding. Compensation data and information on CEOs and boards of directors were drawn from firms' 1999 and 1998 proxy statements. Company financial data were obtained from COMPUSTAT. Monthly stock price and market performance data were obtained from the CRSP database. Institutional and CEO ownership data were obtained from Compact Disclosure.

## Variables and Analysis

**Dependent variable.** The dependent variable in the study was whether or not an *option-repricing event* occurred during a monthly spell between July and December 1998. A repricing event was coded as having occurred if any prior option grant offered to a firm's CEO was reported as being repriced during the last six months of 1998.

**Independent variables.** The *negative spread* between the average strike price of a CEO's options and the current market price of the corporation employing the CEO was assessed monthly. We subtracted the market price of the firm's stock at the beginning of each month from the weighted average

strike price of all the CEO's option grants. Thus, *positive* values for this measure indicate the degree to which a CEO's options are underwater. The strike price of each option grant was weighted by the number of options associated with the grant. The weighted average of all grants was used because it is impossible to accurately assess which options, if any, will be repriced until the event occurs. Using the weighted average also helped adjust for the impact of the size and strike price differentials of the various grants. Because a weighted average of all grants was used, it was possible for the spread based on the overall average to be in the money even if one or more grants were substantially underwater.

*Institutional ownership* and *CEO ownership* were measured as the percentage of outstanding voting shares owned collectively by all institutions and by a firm's CEO, respectively, at the beginning of the period of study.

Three variables were used to measure CEO structural power. *CEO duality* was a dummy variable indicating whether or not a firm's CEO was also the chairman of its board. CEO duality is a commonly used measure of CEO power (Wade et al., 1990). The *number of board members appointed after the CEO* indicates a CEO's potential to capture and consolidate power over the board (Wade et al., 1990; Westphal & Zajac, 1998). Finally, a dummy variable indicating whether or not a company had a *staggered board* was also included as an indicator of CEO power. Classifying directors into different groups, as is done in some firms, and staggering the elections of the classes so that only a minority of a board can be voted out in any one year makes it more difficult to take over a company and oust its CEO (Sundaramurthy et al., 1996).

Visibility was assessed as the *net sales* of a firm in fiscal 1997 plus the *total cash compensation* (1998 base salary + 1997 annual bonus) of the CEO. The use of sales as a proxy for firm size is well established in the literature, was appropriate for the industry of interest here, and is consistent with prior research on repricing (e.g., Brenner et al., 2000).

**Control variables.** We included the *total value of the option package at risk* of being repriced at the beginning of the time period to control for the magnitude of the potential loss to the CEO. This measure was defined as the sum of the market price at the beginning of the study period minus the strike price of each grant multiplied by the number of shares underlying the options in that grant. Option grants that were underwater at the beginning of the study were assigned a value of zero. Although we recognize that options have a theoretical nonzero

valuation up to the point of expiration (based on use of the Black-Scholes or similar option valuation techniques), this simple calculation is more likely to reflect the valuation an executive will consider when determining how much money he or she may have "lost" owing to a decline in stock price.

We also included a *monthly market performance* measure based on changes in the NASDAQ composite index to control for changes in general market conditions. *Board size* was included as a control because the size of a board can influence the number of board members appointed after a CEO enters office.

We converted the total value of the option package at risk, institutional ownership, cash compensation, and sales to natural logarithms to reduce the effects of extreme values of these measures on the analyses. Since some companies had zero sales and/or institutional ownership, we added a value of one to these variables for all observations before logging.

**Method of analysis.** We modeled option repricing using discrete time event history techniques, which estimate logit models of dichotomous outcomes for pooled time series data in which the same units are observed at multiple intervals (Allison, 1984; Yamaguchi, 1991). Covariates are allowed, but not required, to vary between time periods. Since the data contained multiple observations of the same CEO that are not independent

across spells, we employed the cluster command using the Stata 6.0 statistical software package, which provides a conservative test of the hypotheses by using robust estimators of variance.

## RESULTS

Table 1 summarizes the characteristics of repriced options. The average decline in stock price between June 1 and the month before a repricing event occurred was 46.7 percent; 53 percent of companies repricing options pointed to market factors in explaining this drop. However, the NASDAQ was up an average of 2.2 percent at the time firms repriced. This observation is consistent with prior research (Brenner et al., 2001; Chance et al., 2000) showing little systematic relationship between market conditions and stock price declines for companies that reprice.

CEOs who had their options repriced had their strike prices decreased by 50 percent on the average. In our sample, 82 percent of the companies claimed repricing was necessary to retain key personnel, and 65 percent of the companies suggested repricing was necessary to motivate employees and realign their interests with those of shareholders. Approximately 79 percent of the repriced options were back in the money by the end of 1999, on the basis of the new strike prices. However, 64 percent of the CEOs would have been back in the money by

TABLE 1  
Characteristics of Repriced Options

Characteristic	Mean	Median	s.d.	Minimum	Maximum
Percent change in stock prior to repricing <sup>a</sup>	-46.7	-47.2	25.2	-4.0	-81.8
Percent change in NASDAQ prior to repricing <sup>a</sup>	2.2	-0.4	6.5	-7.8	13.4
Percent change in total value of options <sup>a</sup>	-63.3	-35.1	42.4	0	-100
Percent change in strike price at repricing <sup>b</sup>	-49.9	-47.2	16.6	-24.8	-84.3
With repricing					
Percentage of CEOs at or in the money, end of 1998 <sup>c</sup>	71				
Percentage of CEOs at or in the money, end of 1999 <sup>d</sup>	79				
Value of repriced options, end of 1998	\$942,737	\$59,175	\$2,157,342	\$0	\$8,643,900
Value of repriced options, end of 1999	\$3,133,799	\$1,065,124	\$3,615,221	\$0	\$10,575,000
Without repricing					
Percentage of CEOs at or in the money, end of 1998 <sup>c</sup>	18				
Percentage of CEOs at or in the money, end of 1999 <sup>d</sup>	64				
Value of repriced options, end of 1998	\$388,400	\$0	\$1,457,803	\$0	\$6,206,400
Value of repriced options, end of 1999	\$2,166,995	\$845,403	\$2,925,609	\$0	\$8,137,500

<sup>a</sup> These are percent changes relative to June 1, 1998.

<sup>b</sup> Compared to strike price at time of grant or prior repricing. Underwater options were valued at zero.

<sup>c</sup> Based on 17 CEOs.

<sup>d</sup> Based on 14 CEOs; three firms were acquired or went bankrupt in 1999.

the end of 1999 had their options *not* been repriced. Repricing increased the mean value of the CEOs' options at the end of 1998 by an average of \$554,000, although this effect appears to have been driven by the outsized \$8.4 million gain of one CEO. The median increase was a more modest \$59,175. By the end of 1999, however, the median increase due to repricing was over \$200,000, and the mean increase was nearly \$1,000,000.

Table 2 presents a correlation matrix and descriptive statistics for all the variables used in the models reported. Table 3 presents the results of the logistic regression analyses testing our hypotheses. The negative spread, or difference between the average option strike price and the market price of a stock, is positively and significantly related to repricing in four of the five models. Since positive values indicate the degree to which a CEO's options are underwater, Hypothesis 1 is supported. By multiplying a given coefficient by a change in the independent variable and then exponentiating it, we obtained the change in the odds of an event's occurring or not occurring. The effect of negative spread is relatively strong; for example, the increase in odds that results from a \$5 increase in negative spread is  $\exp(.121 \times 5) = 1.83$ .

The results reported under model 2 support Hypotheses 2 and 3, stating that institutional and CEO ownership will reduce the effect of a negative spread on the likelihood of repricing. The interactive effects of both institutional ownership and CEO ownership on spread are negative and significant. Indeed, if the negative spread is \$5 and the level of institutional ownership doubles, the effect on the odds of repricing decreases by a factor of two. These effects remain robust in the saturated

model. Models 2 and 5 also exhibit significant improvement in fit over the "main effects" model at the .05 level.

Model 3 is a test of Hypothesis 4, which predicts that CEO structural power will have a positive moderating effect on negative spread and will enhance the probability of repricing. CEO duality has the predicted positive and significant moderating effect. If a negative spread is \$5, and the CEO of the firm in question is also the chairman of its board, the impact of the negative spread is increased by a factor of 1.7. We also found that the number of board members appointed after a CEO took office has a significant moderating effect, but its direction is the opposite of that predicted by Hypothesis 4. The staggered board interaction is not significant in model 3. In the saturated models duality continues to have a positive and significant effect; the variable for board members appointed after the CEO is no longer significant; and staggered board has a significant, negative, moderating effect. Thus, Hypothesis 4 is only partially supported.

Model 4 tests Hypothesis 5, that firm and CEO visibility will negatively impact the effect of spread on option repricing. Neither sales nor CEO cash compensation are significant in this model. However, the moderating effect of total cash compensation is negative and significant in the saturated model. In addition, Table 2 indicates that sales and CEO cash compensation are correlated at .75; thus, collinearity may be masking potentially significant results. When total cash compensation was not included in models 4 and 5, the moderating effect of sales was negative and significant ( $p < .05$ ), as predicted in Hypothesis 5. Similar results were found for total cash compensation when sales was

**TABLE 2**  
**Descriptive Statistics and Correlations<sup>a</sup>**

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11
1. Repricing event													
2. Negative spread	-6.25	12.77	.10										
3. Market performance	2.25	6.67	-.00	-.11									
4. Institutional ownership <sup>b</sup>	3.00	1.36	.01	-.24	.00								
5. CEO ownership	7.82	10.39	-.06	-.04	.00	-.29							
6. CEO duality	0.56	0.50	-.05	.01	.00	.10	.33						
7. Board members appointed after CEO	2.90	2.10	-.09	-.25	.00	.14	.36	.31					
8. Staggered board	0.51	0.50	-.02	.03	.00	.11	.07	.15	.03				
9. Net sales <sup>b</sup>	3.80	1.53	-.01	-.30	.00	.49	-.16	.11	.17	.02			
10. CEO cash compensation <sup>b</sup>	12.74	0.66	.03	-.25	.00	.32	-.14	.16	.24	-.07	.75		
11. Value of option package at risk <sup>b</sup>	12.16	5.59	-.06	-.49	.00	.21	-.15	-.08	.09	-.02	.29	.25	
12. Board size	6.16	1.45	-.02	-.16	.00	.05	.01	.09	.51	.13	.21	.29	.03

<sup>a</sup> Correlations greater than .12 are significant at  $p < .001$ ;  $r$ 's greater than .08 are significant at  $p < .01$ ;  $r$ 's  $> .07$  are significant at  $p < .05$ .

<sup>b</sup> Logarithm.



**TABLE 3**  
**Results of Discrete Time Event History Analysis<sup>a</sup>**

Explanatory Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Negative spread	0.12** (0.04)	1.02*** (0.30)	0.19** (0.06)	0.15 (0.47)	2.49*** (0.59)
Institutional ownership <sup>b</sup>	0.16 (0.27)	0.26 (0.31)	0.03 (0.29)	0.16 (0.28)	0.18 (0.33)
CEO ownership	-0.04 (0.05)	-0.04 (0.04)	-0.06 (0.06)	-0.04 (0.05)	-0.03 (0.05)
CEO duality	-0.60 (0.71)	-0.60 (0.67)	-0.70 (0.63)	-0.61 (0.71)	-1.29 (0.82)
Board members appointed after CEO	-0.22 (0.16)	-0.24 (0.17)	-0.15 (0.18)	-0.23 (0.16)	-0.25 (0.19)
Staggered board	-0.26 (0.55)	-0.12 (0.55)	-0.18 (0.58)	-0.21 (0.54)	0.00 (0.58)
Sales <sup>b</sup>	-0.38 (0.25)	-0.45 <sup>+</sup> (0.27)	-0.34 (0.27)	-0.35 (0.24)	-0.37 (0.31)
Cash compensation <sup>b</sup>	0.88 <sup>+</sup> (0.55)	1.01* (0.49)	0.58 (0.63)	0.76 (0.56)	0.96 <sup>+</sup> (0.57)
Amount at risk <sup>b</sup>	0.00 (0.03)	0.04 (0.04)	0.03 (0.04)	0.01 (0.04)	0.09 <sup>+</sup> (0.05)
Market performance	0.01 (0.03)	0.02 (0.03)	0.01 (0.03)	0.01 (0.03)	0.03 (0.03)
Board size	0.10 (0.17)	0.02 (0.19)	0.06 (0.18)	0.13 (0.17)	-0.03 (0.19)
Institutional ownership × spread		-0.21** (0.07)			-0.20*** (0.06)
CEO ownership × spread		-0.01*** (0.00)			-0.01*** (0.00)
CEO duality × spread			0.10 <sup>+</sup> (0.05)		0.33*** (0.07)
Board members appointed after CEO × spread			-0.02* (0.01)		0.00 (0.01)
Staggered board × spread			-0.05 (0.05)		-0.07 <sup>+</sup> (0.04)
Sales × spread				-0.04 (0.03)	-0.01 (0.02)
Cash compensation × spread				0.01 (0.04)	-0.11* (0.05)
Constant	-13.58* (6.84)	-15.39** (5.86)	-9.69 (7.70)	-12.39 <sup>+</sup> (6.83)	-15.01* (6.77)
Log-likelihood	-73.74	-70.23	-71.73	-73.16	-66.01

<sup>a</sup> Values in parentheses are standard errors.

<sup>b</sup> Logarithm.

<sup>+</sup>  $p < .10$

\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$

excluded from the saturated model, although the moderating effect of compensation was still not significant in model 4. Hypothesis 5 is thus at least partially supported.

## DISCUSSION

In this study we have begun to explore how CEO and stakeholder power impact organizational actions that can have potentially negative consequences for a firm. Our findings provide the opportunity to extend theories in executive compensation beyond the traditional agency theory framework (Barkema & Gomez-Mejia, 1998), and they provide some insights into an important phenomenon that so far has not received much attention in the management literature.

Our findings support the perhaps unsurprising contention that the degree to which a CEO's stock options are underwater is a primary driver of the decision whether or not to reprice. Of more interest is the fact that a number of political factors interact with this primary driver to enhance or retard its effect on repricing. Consistent with previous research on CEO power, having a CEO who is also the chair of the board enhances the probability that

stock options will be repriced. An interesting and unexpected finding was that having more board members appointed by a CEO and having staggered board elections *reduced* the impact of spread on the likelihood of repricing. There is an important distinction between the roles of these measures and CEO duality in our findings. Whereas holding both the CEO and chair positions directly enhanced a CEO's power, having made a high percentage of board appointments and having staggered board elections enhanced the power of a CEO *indirectly*, presumably by decreasing the power of the board. It is possible that when board members consider a relatively infrequent and visible action that is likely to be interpreted negatively—such as deciding to reprice options—board members are especially sensitive about appearing to aid their CEO and thereby confirm assumptions about their weakness and lack of independence. Such a perception on the part of external stakeholders could diminish the legitimacy of board claims about other issues. Thus, rather than enhancing CEO power, it is possible that these factors create impression management concerns for a board that may decrease CEO power.

Ownership power was found to reduce the ef-

fects of spread on repricing. The finding that the percentage of common stock owned by institutional investors had a negative, moderating effect is consistent with previous research that suggests increasingly activist institutional shareholders can and do attempt to limit executive compensation (David, Kochhar, & Levitas, 1998; Useem, 1996). Also consistent with previous research (Murphy, 1999), CEO ownership was negatively associated with repricing. It is possible that this finding results from the alignment of interests that comes with direct stock ownership. It is also possible that CEOs who own a significant proportion of their companies' stock become more risk averse (Sanders, 2001) and thus less willing to risk the consequences for the firms of repricing. Table 2 reveals a negative correlation between CEO stock ownership and total amount at risk. Thus, CEOs with high levels of stock ownership may also be less concerned with repricing because it represents a smaller proportion of their total wealth. Finally, it may also be the case that CEOs with substantial ownership stakes are less likely to leave their companies because their options are underwater, and therefore the retention motivation purportedly underlying many repricing decisions is not as urgent.

This study also provided some support for the expectation that the visibility of a firm and of its CEO has a negative impact on repricing. If the visibility of the act and the resulting fallout were not a concern, then size would not have had a negative, moderating effect. In fact, we might have expected to observe a positive interaction with CEO compensation, on the basis of the argument that high compensation levels indicate a CEO's ability to meet self-serving needs.

Our results have potentially significant implications for agency theory, which provides the logic for granting stock options, and they are consistent with the arguments of others (e.g., Murphy, 1999) who have suggested that stock options are ineffective in aligning management and shareholder interests. Our findings show that powerful CEOs have a greater ability to change the strike price of their options, thereby removing the downside threat faced by stockholders. However, our results also support the contention that direct CEO ownership, even though it increases CEO power, also limits self-serving behavior. It is possible that alignment can be achieved with relatively small CEO ownership stakes, as long as the holdings represent a significant portion of a CEO's total wealth. One implication of this study for practitioners, then, is that restricted stock awards, which increase a CEO's direct ownership but prevent the CEO from selling the stock for a period of time, may be supe-

rior to stock options for achieving incentive alignment. Future research might continue to explore this issue. Finally, our findings support recent work (e.g., Wiseman & Gomez-Mejia, 1998) that suggests all managers are not uniformly risk averse, as is traditionally assumed within agency theory. Rather, contextual factors can influence management perceptions of, and willingness to tolerate, risk. Future research should continue to explore this issue in other contexts besides compensation, such as strategic decision making.

Like any study, this one is not without limitations. We focused on a single industry in which stock options are considered an especially important part of the compensation package (Carter & Lynch, 2001). Although such a focus provides a number of benefits, it also limits the generalizability of our findings. In addition, we restricted the time frame of our study to a six-month period that saw extreme market volatility. It is possible a different pattern of results could emerge if repricing events were examined over a longer period of time. However, 11.5 percent of the companies in our sample repriced within a six-month period, providing us with the necessary conditions to identify and capture the effects of forces that may have been more difficult to identify statistically in a longer and less turbulent period. (For instance, Brenner et al. [2000] found that only 1.3 percent of the companies in their sample repriced in a given year.) A final limitation is that we focused only on CEO option repricing. We were unable to determine whether or not employees beyond the five highest-paid individuals also had their options repriced. However, whenever a CEO's options were repriced in our sample, at least some if not all of the other top executives in his or her firm also had their options repriced. It is unlikely that substantially different forces were at play when the board decided to reprice their options, although it is possible that different forces might be at play when a CEO's options are *excluded* from a repricing event. Future research might explore this question.

Additional research could also look more closely at serial repricers, companies that repeatedly reprice option grants for executives (Byrne, 1998). Although previous research has noted the presence of serial repricers (e.g., Brenner et al., 2000), no analyses have been conducted that explore how these firms differ from those that reprice only once or not at all. Future research might also examine companies' claims that repricing is necessary to retain key individuals by exploring the effects of repricing on executive turnover, as well as by exploring other organizational ramifications associ-

ated with repricing, including long-term stock price performance.

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